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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,559	02/23/2004	William A. Pugh	BEAS-01411US1	8662
23910	7590	02/07/2008	EXAMINER	
FLIESLER MEYER LLP			VO, TED T	
650 CALIFORNIA STREET			ART UNIT	
14TH FLOOR			PAPER NUMBER	
SAN FRANCISCO, CA 94108			2191	
			MAIL DATE	DELIVERY MODE
			02/07/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/784,559

Applicant(s)

PUGH ET AL.

Examiner

Ted T. Vo

Art Unit

2191

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>11/27/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the amendment filed on 11/27/2007.

Claims 11-21 are new and pending in the application.

Response to Arguments

2. The arguments to the new amended claims 11-21 have been considered but not persuasive.

Particularly, the argument in the remarks alleged that Bogle's system for debugging a virtual application that contains program code in several source code files versus Claim 11 's system for debugging a single source code file that contain multiple nested languages. By this reason, Applicants argued that Bogle does not disclose their newly added limitation:

"Wherein the multi-language debugger interprets multiple languages that are nested in a single source file, and wherein the multiple nested languages can include both compiled and interpreted languages"

Examiner disagrees. Claim 11 including its dependency as a whole claims "a system for debugging". Its elements are:

a multi-language debugger, a script debug controller, a debuggable frame object, an interface to a message environment, and debug command interface.

For a single language debugger, it comprises all the claims' elements. Debugging to multiple languages nested in a single source file as claimed does not make different from debugging a single language in a source file, except it is intended use with the term "Multiple". In the specification, as it is clearly by Applicants admission, the use of debug elements is of others; for example "JDI", now amended as "Debugging Interface". The functionality in the claims shows it does the same as a conventional

debugger, except it adds more ingredients ("multiple") to debug for more than one language in a single source file.

In *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

The prior art in this manner, the examiner views as a conventional debugger.

On the other hand, with the argument to the added limitation: "*Wherein the multi-language debugger interprets multiple languages that are nested in a single source file, and wherein the multiple nested languages can include both compiled and interpreted languages*". The add limitation does not change the structure of the debug system: *a multi-language debugger, a script debug controller, a debuggable frame object, an interface to a message environment, and debug command interface*. Eventually, it does not cause a patentable change for any type of input into the system, whether the input is program code in several source code files or a single source code file that contain multiple nested languages. In fact, the intended purpose "*a single source code file that contain multiple nested in a single source file*" reads on mixed-language scripting code as disclosed in the reference.

All other arguments have been considered, but they are not persuasive because Applicants fails to address patentability in the limitations for the claims.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 11-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Bogle et al., US PAT. No. 6,353,923 B1.

As per claim 11: Bogle discloses ***A system for debugging in more than one programming language, comprising:***

a multi-language debugger with the capability to debug a source code file which contains multiple, nested, languages, wherein the multi-language debugger interprets multiple languages that are nested in a single source file, and wherein the multiple nested languages can include both compiled and interpreted languages;

See the system of FIG. 4, and the statement in col. 4:10-19, debugging a multiple language application", multiple compiled..., etc. Further See

At step 512, the script host 421 generates a virtual application for run time execution. The virtual application can contain program language code from only single programming language, or the virtual application can contain an aggregate of programming language code from multiple compiled and/or interpreted programming languages. Additional details of step 512 are disclosed in the text accompanying FIG. 6.

a script debug controller, wherein the multi-language debugger uses a standardized interface for a script engine (See Term Definition, col. 7: See FIG. 4: e.g. #411), ***wherein all***

communications with the script engine will be through calls to the script debug controller; (See FIG. 4: Between communication between #220 and #411);

a debuggable frame object (See FIG. 4: #420), *wherein the script engine uses a debuggable frame object to retrieve script context for a supported language, wherein each of the multiple nested languages is displayed in a debuggable frame object, and wherein each of the multiple nested languages can be edited in the debuggable frame object* (FIG. 4 and associated texts); *an interface to a messaging environment, wherein the interface is implemented by a runtime messaging environment that controls a running state of the script engine* (See FIG. 3); *and a debug commands interface* (See FIG. 3: e.g. "LOAD", "RUN"); *and*

As per claim 12: Bogle discloses *The system of claim 11, wherein the multi-language debugger is extensible and a user can add language definitions to support additional languages.* (See the system of FIG. 4, and the statement in col. 4:10-19, debugging a multiple language application", multiple compiled..., etc. This debugging environment is extensible).

As per claim 13: Bogle discloses *The system of claim 11, wherein the debugger uses Debugging Interface* (Improper claiming for using other product that does not come from "invention". Using SUN product JDI, the claims admitted SUN invented this claimed feature – In the mean time; see the interface environment in this reference).

As per claim 14: Bogle discloses *The system of claim 11, wherein if more than one language appears on a stack, a user can see a debuggable frame for each language and the user can inspect variables for each language* (See term definition, col. 7, Expression context).

As per claim 15: Bogle discloses *Tile system of claim 11 further comprising: a proxy, wherein tile proxy is used between the executing code being debugged and the debugger* (See descriptions start at col. 38 and through, includes the marshalling proxy).

As per claim 16: Bogle discloses ***The system of claim 15, wherein the script engine interface can be used by the debugger to communicate metadata to the proxy*** (See descriptions start at col. 38 and through).

As per claim 17: Bogle discloses ***The system of claim 11, wherein the debugger interacts with the runtime messaging environment*** (See FIG. 3, FIG. 5, #512).

As per claim 18: Bogle discloses ***The system of claim 17, wherein debugging is performed on a server side of the runtime messaging environment*** (This reference can do this claim, see entire reference).

As per claim 19: Bogle discloses ***The system of claim 18, wherein the runtime messaging environment interprets language interactions and performs debugging using a Platform Debugging Architecture*** (Improper claiming for using other product that does not come from "invention". Using SUN product, JPDA, the claims admitted SUN invented this claimed feature – In the mean time; see the runtime environment in this reference).

As per claim 20: Bogle discloses ***The system of claim 11, wherein the script engine has a static constructor load the script debug controller*** (Refer to debugging time, compiling time; for example see "LOAD", then "RUN").

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A person shall be entitled to a patent unless –

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bogle et al., US PAT. No. 6,353,923 B1.

Given the broadest reasonable interpretation of followed claims in light of the specification.

As per claim 21: Bogle discloses the "script debug controller" (see FIGs. 3-4: For example, a Machine Debug Manager) receives information from the script engine (See Reference numbers: 420-423).

Bogle does not explicitly address the information as descriptive materials covered by limitations:

- a) language extensions for each language;***
- b) classes that implement the script engine;***
- c) information on optional capabilities for each language; and***
- d) language name.***

It should be noted that a limitation in claim, which recites the data or information where the limitation does not perform any particularly functionality in the claim, is considered as non-functional descriptive martial. The information recited by the Reference' controller is obviously conforming to the standard of the source file in which it is carried out for debugging. It cannot be patentable distinct.

(Cf. In re Gulack, 703 F.2d 1381, 1385, 217 USPQ 401,404 (Fed. Cir. 1983) (when descriptive material is not functionally related to the substrate, the descriptive material will not distinguish the invention from the prior art in terms of patentability)).

Therefore, it is obvious to the ordinary in the art at the time of this filing application, to know that the nonfunctional descriptive materials are merely descriptions as information for describing the type of languages that is necessary in a multiple-languages debugger. It is obvious to include the descriptions because it is a requirement, and will help the controller or the user in providing programming language specific decision which is passed through debugging process as subject in the PDM 424.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

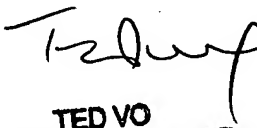
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ted T. Vo whose telephone number is (571) 272-3706. The examiner can normally be reached on 8:00AM to 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Y. Zhen can be reached on (571) 272-3708.

The facsimile number for the organization where this application or proceeding is assigned is the Central Facsimile number **571-273-8300**.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TTV
February 01, 2008


TED VO
PRIMARY EXAMINER